



GOSAT mission status and data products for five years

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The Greenhouse Gases Observing Satellite (GOSAT), launched on January 23, 2009, has recently completed its planned nominal operation period of five years. Now, it is in the phase of extended operation. Observational data obtained with two sensors onboard the satellite, the TANSO Fourier Transform Spectrometer (FTS) and the TANSO Cloud and Aerosol Imager (CAI), have been routinely processed into a suite of GOSAT data products for about five years. Nearly all of the GOSAT standard data products, including TANSO-FTS SWIR Level 2 column-averaged concentrations (XCO_2 and XCH_4), Level 4A regional CO_2 flux estimates, and Level 4B model-simulated 3-D CO_2 distributions, are publicly available at the GOSAT User Interface Gateway (URL: <https://data.gosat.nies.go.jp/>). Trends and anomalies in these data products, both on seasonal and annual timescales, are now being analysed.

We herein report the latest status of the GOSAT Project, researches adopted in the framework of the GOSAT Research Announcement, and the production of GOSAT higher-level standard data products, along with status of validation and distribution of the data products, plans of changing target observation schemes, and inter-comparison of GOSAT-based retrieved column concentrations. We will also touch on the GOSAT research data products that are opened to registered researchers (not validated). These data products include TANSO-CAI Level 2 cloud and aerosol properties, Level 4A regional CH_4 flux estimates, and Level 4B model-simulated 3-D CH_4 distributions.